

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A method comprising:

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establishing a communication path between a mobile-device in a first-communication-area and a server through a ~~home-device~~ home-agent; and
maintaining the communication path through the ~~home-device~~ home-agent when the mobile-device moves to a second-communication-area; and
using respective program layers below transmission control protocol/internet protocol (TCP/IP) program layers in the mobile-device and the home-agent to establish the communication path and maintain the communication path.

2. (Canceled)

3. (Original) The method of claim 1 including maintaining the communication path ~~through~~ to the mobile-device when moving from the first-communication-area associated with a first-subnet to a second-communication-area associated with a second-subnet.

4. (Currently Amended) The method of claim 1 comprising:

assigning a home-address associated with the ~~home-device~~ home-agent to the mobile-device;

assigning a first-real-address associated with a first-communication-area to the mobile-device; and

detecting the mobile-device's movement into the second-communication-area.

5. (Original) The method of claim 4 including assigning a second-real-address associated with the second-communication-area to the mobile-device.

6. (Original) The method of claim 5 including generating the first-real-address and the second-real-addresses from a server using dynamic host configuration protocol (DHCP).

7. (Original) The method of claim 4 including maintaining the communication path when the mobile-device moves from the first-communication-area associated with a first-subnet to the second-communication-area associated with a second-subnet.

8. (Original) The method of claim 4 including detecting movement into the second-communication-area is performed by the mobile-device.

9. (Currently Amended) A method comprising:

generating a request from a mobile-device, the request comprising a request-layer including a home-address of the mobile-device and a server-address;

encapsulating the request-layer with a roaming-layer including a real-address of the mobile-device and a ~~home-device-address~~ home-agent-address; and

communicating the encapsulated request-layer to a ~~home-device~~ home-agent based on the ~~home-device-address~~ home-agent-address; and

using a program layer below a transmission control protocol/internet protocol (TCP/IP) program layer in the mobile-device to generate the request, encapsulate the request-layer and communicate the encapsulated request-layer.

10. (Original) The method of claim 9 comprising:

removing the roaming-layer from the encapsulated request-layer; and
communicating the request-layer from the ~~home-device~~ home-agent to a server based
on the server-address.

11. (Currently Amended) The method of claim 10 comprising:

generating a response to the request from the ~~home-device~~ home-agent to the server,
the response including a response-layer having the server-address and the ~~home-device-~~
~~address~~ home-agent-address; and
communicating the response to the ~~home-device~~ home-agent.

12. (Original) The method of claim 11 further comprising:

encapsulating the response with a roaming-layer, including the real-address and the
home-address of the mobile-device; and
communicating the encapsulated response to the mobile-device.

13. (Canceled)

14. (Currently Amended) The method of claim 9 including using [[a]] the program layer
below a transmission control protocol/internet protocol (TCP/IP) program layer in the ~~home-~~
~~device~~ home-agent to modify the encapsulated request-layer with the roaming-layer and
communicate the request-layer.

15. (Currently Amended) A communication system comprising:

a ~~home-device~~ home-agent;
a server; and

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a mobile-device including a processor configured to:

generate a request from the mobile-device, the request comprising a request-layer including a home-address of the mobile-device and a server-address of the server,

encapsulate the request-layer with a roaming-layer including a real-address of the mobile-device and a ~~home-device-address~~ home-agent-address, and

communicate the encapsulated request-layer to the ~~home-device~~ home-agent based on the ~~home-device-address~~ home-agent-address; and

use respective program layers below transmission control protocol/internet protocol (TCP/IP) program layers in the mobile-device and the home-agent to establish a communication path and maintain a communication path between the home-agent and the mobile-device.

16. (Currently Amended) The system of claim 15 wherein the ~~home-device~~ home-agent includes a processor configured to remove the roaming-layer from the encapsulated request-layer and communicate the request-layer from the ~~home-device~~ home-agent to the server based on the server-address.

17. (Currently Amended) The system of claim 15 wherein the ~~home-device~~ home-agent includes a processor configured to:

encapsulate a response with a roaming-layer, including the real-address and the home-address of the mobile-device and

communicate the encapsulated response to the mobile-device.

18. (Currently Amended) A mobile-device comprising:

a network-interface-adapter; and

a processor configured to:

generate a request comprising a request-layer including a home-address of the mobile-device and a server-address,

encapsulate the request-layer with a roaming-layer including a real-address of the mobile-device and a ~~home-device-address~~ home-agent-address, and

communicate the encapsulated request-layer through the network-interface-adapter to a home-agent based on the ~~home-device-address~~ home-agent-address; and

use respective program layers below transmission control protocol/internet protocol (TCP/IP) program layers in the mobile-device and the home-agent to establish a communication path and maintain a communication path between the home-agent and the mobile-device.

19. (Canceled)

20. (Currently Amended) A home-agent comprising:

a network-interface-adapter; and

a processor configured to:

receive a request-layer encapsulated with a roaming layer, the request-layer including a server address,

remove the roaming-layer from the encapsulated request-layer, and

communicate the request-layer through the network-interface-adapter to a server based on the server-address, wherein

the processor uses respective program layers below transmission control protocol/internet protocol (TCP/IP) program layers.

21. (Original) The home-agent of claim 20, the processor configured to:

receive a response from the server;

encapsulate the response with a roaming-layer including a real-address and a home-address of the mobile-device, and

communicate the encapsulated response to the mobile-device.

22. (Canceled)

23. (Currently Amended) An article comprising a computer-readable medium that stores computer-executable instructions for causing a computer system to:

assign a home-address associated with a ~~home-device~~ home-agent to a mobile-device;

assign a first-real-address associated with a first-communication-area to the mobile-device; ~~and~~

detect movement of the mobile-device into a second-communication-area; and

use respective program layers below transmission control protocol/internet protocol (TCP/IP) program layers in the mobile-device and the home-agent to establish a communication path and maintain the communication path between the home-agent and the mobile-device.

24. (Original) The article of claim 23 including instructions for causing the computer system to assign a second-real-address associated with the second-communication-area to the mobile-device.

25. (Currently Amended) An article comprising a computer-readable medium that stores computer-executable instructions for causing a computer system to:

generate a request from a mobile-device, the request comprising a request-layer including a home-address of the mobile-device and a server-address;

encapsulate the request-layer with a roaming-layer including a real-address of the mobile-device and a ~~home-device address~~ home-agent-address; and

communicate the encapsulated request-layer to a ~~home-device~~ home-agent based on the ~~home-device address~~ home-agent-address; and

use respective program layers below transmission control protocol/internet protocol (TCP/IP) program layers in the mobile-device and the home-agent to establish a communication path and maintain a communication path between the home-agent and the mobile-device.

26. (Currently Amended) The article of claim 25 including instructions for causing the computer system to:

remove the roaming-layer from the encapsulated request-layer; and

communicate the request-layer from the ~~home-device~~ home-agent to a server based on the server-address.

27. (Currently Amended) The article of claim 25 including instructions to:

generate a response to the request from the ~~home-device~~ home-agent to a server, the response including a response-layer containing the server-address and the ~~home-device address~~ home-agent-address; and

communicate the response to the ~~home-device~~ home-agent.

28. (Original) The article of claim 25 including instructions to:

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encapsulate the response with a roaming-layer including the real-address and the
home-address of the mobile-device; and

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communicate the encapsulated response to the mobile-device.

29. (New) The method of claim 1 wherein a protocol other than TCP/IP is also enabled to
establish the communication path and maintain the communication path.
